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Instruction Manual

1T-CT-637
HDMI to 8x CAT.6 Transmitter

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1.0 INTRODUCTION

Thanks for purchasing this 1T-CT-630 Series HDMI Extender product from TV One. The 1T-CT-637 is an HDMI to 8x Cat.6 output transmitter which provides a method of transmitting deep color (12 bits) v1.3 HDMI or DVI-D signals at resolutions up to 1920x1200 and 1080p, plus embedded, lossless audio, over one Cat.6 cable per output. The 1T-CT-637 can achieve signal distribution distances of up to 38 meters (125 feet) for 1080p signals, 55 meters (180 feet) for 720p/1080i signals and 65 meters (213 feet) for 480p signals. It is compatible with the 1T-CT-632 Receiver and 1T-CT-633 Repeater, available separately. The transmitter also features the unique TV One-task locking power connectors to enhance overall system mechanical security.

Our professional video conversion products have been serving the industry for over twenty years. TV One offers a full line of high quality Seamless Switchers, Video Scalers, Up/Down/Cross Converters, Analog-Digital Converters (SD/HD-SDI, HDMI, DVI), Format Converters, Standards Converters, TBC/Frame Synchronizers, Matrix Routing Switchers, Signal Distribution Amplifiers and Cat.5 Transmission Systems.

1.1 Liability Statement

Every effort has been made to ensure that this product is free of errors. TV One cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user of the hardware to check that it is suitable for his/her requirements and that it is installed correctly. All rights reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

TV One reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.

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1.2 Features

The 1T-CT-637 multiple output transmitter has many features that enable it to perform in a superior manner. Among these features you will find:

- Resolutions to 1920x1200, 1080p @ 60Hz
- 1080p signal distribution up to 38 meters (125 feet)
- Supports Embedded HDMI v1.3 Lossless Digital Audio
- Compliant with HDMI v1.3, HDCP 1.1 and DVI 1.0 specifications
- Supports up to 8 CAT-6 outputs, single cable per output
- Supports high definition input up to 1080P, output resolution follows input
- Locking +5VDC Connectors for enhanced mechanical security

2.0 SPECIFICATIONS

Video In	
HDMI	1x via HDMI Connector
Video Output	
Via Cat.6	8x via RJ-45 (Video & Embedded Audio)
Supported Signals & Protocols	
Industry Standards	HDMI v1.3, HDCP 1.1, DVI 1.0, xvYCC
Video Performance	
Maximum Resolution	Up to 1920x1200, 1080p/60Hz
TMDS Clock Frequency	225MGbps
Maximum Range	
(using 1T-CT-632 Receivers)	1080p up to 38 meters (125 ft) 720p/1080i up to 55 meters (180 ft) 480p up to 65 meters (213 ft)
Environmental	
Operating Temperature	0° to +40° C (+32° to +104° F)
Operating Humidity	10% to 90%, Non-condensing
Storage Temperature	-10° to +70° C (12° to +158° F)
Storage Humidity	10% to 90%, Non-condensing
Warranty	
Limited Warranty	3 Years Parts and Labor
Regulatory Approvals	
Encoder/Decoder Unit	FCC, CE, RoHS
Power Supply	UL, CUL, CE, PSE, GS, RoHS
Cable Requirements	
CAT.6	Network Grade, Premium, Shielded
Mechanical	
Size(H-W-D)	25x240x103mm (1x9.45x4”)
Weight (Net)	225g (0.495 lbs)
Power Requirement	
External Power Supply	5 VDC@6A, Locking DC
Accessories Included	
1x Power Adapter	US, UK or Euro
1x User Manual	
Model Numbers	
1T-CT-637	HDMI In, 8x Cat.6 Outputs Transmitter
Compatible Products	
1T-CT-632	Receiver
1T-CT-633	Repeater

3.0 CHECKING PACKAGE CONTENTS

Before attempting to use this unit, please check the packaging and make certain the following items are contained in the shipping carton:

- 1x Transmitter
- 1x Power Adapter
- 1x Operations Manual

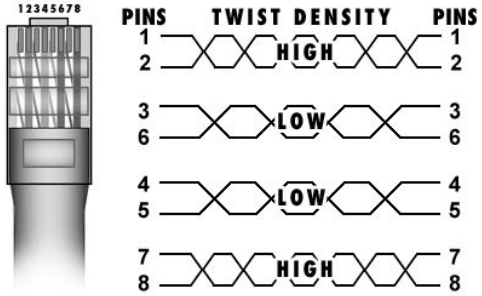
Note: Please retain the original packing material should the need ever arise to return the unit. If you find any items are missing, contact your reseller or TV One immediately. Have the Model and Serial Number and Invoice available for reference when you call.

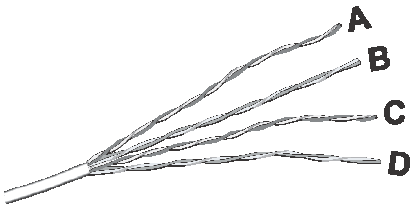
4.0 CONNECTING THE HARDWARE

Please study the panel drawings below and become familiar with the signal input, outputs, power requirements/inputs plus any controls present. *Note: The resolution capability of the remotely located display devices must be capable of displaying the output of the source device. Before connecting the CAT.6 extender system, verify that each display device on the receiving end can support the output resolution and signal format by connecting it directly to the source device.*

4.1 Cat.5e/6 Cable Notes

Pins and pairing. Make sure the CAT.6 cable pin assignments are standard. The correct pairing is straight through, pin-to-pin, with pairing as follows.





Twist density. UTP cable pairs have different twist densities (twist pitches). There are two pairs with high density twist and two pairs with low density. Colors vary by manufacturer. Twist densities can be seen by stripping off about 10 cm (4') of insulation and visually inspecting. Pairs 1-2 and 7-8 should be assigned to high density twists. Failure to assign correct twist densities can result in image jitter. The ABCD picture shows typical UTP cable, with pairs A and C showing a high pitch twist (assigned to pin pairs 1-2 & 7- 8), and B and D with low pitch twist (assigned to pin pairs 3-6 & 4-5).

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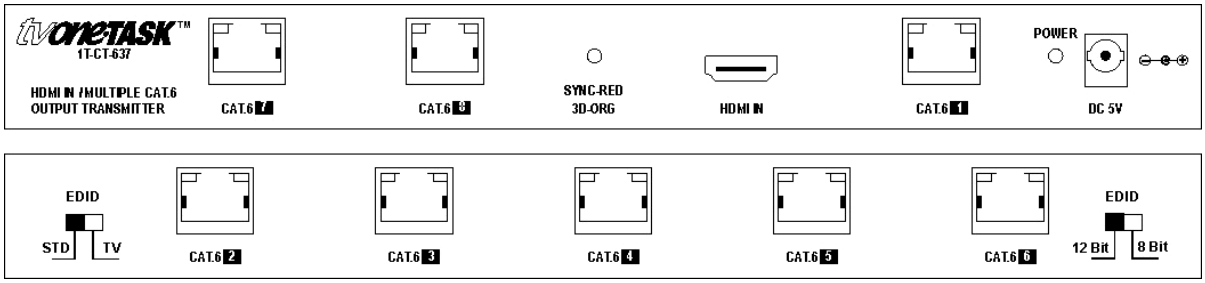
4.2 1T-CT-637 Transmitter



Connect the HDMI source device's output to the HDMI IN connector of the 1T-CT-637 Transmitter, using an appropriate HDMI cable of no more than 10 meters (33') in length.

Connect a Cat.6 cable to between one and eight of the Cat.6 output connectors of the Transmitter. Defer connecting the AC adapter until the Cat.6 cable is connected to both the Transmitter and all of the 1T-CT-632 Receivers.

4.3 1T-CT-632 Receiver

You must have a compatible Cat.6 receiver for the Cat.6 transmission system to work properly. It is assumed you will be using the 1T-CT-632 receiver at each remote display and the following information is based on that assumption. (No 1T-CT-632 receivers are included when you purchase a 1T-CT-637 Transmitter, They must be purchased separately.)

At the remote location, connect the Cat.6 cables to the Cat.6 input of the Receiver. Connect the HDMI Out connector of the Receiver to the HDMI input of the remote display or other device, using an appropriate cable no more than 10 meters (33') in length.

Connect the supplied AC adapters first to the Transmitter and Receiver and then to the AC sockets.

Lastly, turn on the source device and remote display. The source signal should now appear on the remotely located display. If not, consult the Troubleshooting section of this manual.

Note: There are no user controls provided on either the 1T-CT-637 Transmitter or the 1T-CT-632 Receiver. It's important that you should verify that the HDMI source functions properly with the HDMI display device before you attempt to use any of the extender system components. Failure to do this would introduce an unwanted variable that would then have to be resolved should the system not function as expected.

5.0 OPERATING THE UNITS

Once the connections have been made and power applied, there are no operational adjustments required. It is recommended however that the power on sequence be as follows: HDMI to Cat.6 Transmitter, Cat.6 Receiver to HDMI display device, HDMI source and HDMI destination device – in that order.

6.0 TROUBLESHOOTING

Other than faulty cables or attempting to use the product over too great a distance, there are seldom problems with these products.

If there is no image present at the remote location, connect the display device directly to the source to make certain that the problem is not in the display. If an image is present under those circumstances, make certain the transmitter and receiver(s) are receiving power. Next make certain your Cat.6 cable is defect free and the RJ-45 connectors are securely attached to the cable at each end. After trying the above suggestions should the problem still persist, contact your dealer for additional suggestions before contacting TV One. Should the dealer's technical personnel be unable to assist you, contact TV One via our support website: ***http://tvone.crmdesk.com.*** Create a technical support request on the site and our support team will respond within a short period of time.

7.0 LIMITED WARRANTY

TV One warrants the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a fixed term from the date of purchase. The warranty term for specific product lines is defined below.

1. TV One branded products based on TV One's CORIO technology are warranted for a period of five years from the date of purchase. This includes products with the model number prefix of C2, 1T-C2, CX, A2 or S2.

2. TV One-task branded products, other than those based on TV One's CORIO technology mentioned above, are warranted for a period of three years from the date of purchase. This includes products with the model number prefix of 1T, with the exception of 1T-C2.

3. LCD Monitors are warranted for a period of three years from the date of purchase, with the exception of the LCD panels integrated into the monitors that are supplied by third parties. LCD panels are limited to the term and conditions of the warranty offered by the respective LCD panel manufacturer. Such specific LCD panel warranties are available upon request to TV One.

Should a product, in TV One's opinion, prove defective within this warranty period, TV One, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of TV One. This warranty does not apply to those

products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

If repairs are necessary under this warranty policy, the original purchaser must obtain a Return Authorization Number from TV One and return the product to a location designated by TV One, freight prepaid. After repairs are complete, the product will be returned, freight prepaid.

LIMITATIONS - All products sold are "as is" and the above Limited Warranty is in lieu of all other warranties for this product, expressed or implied, and is strictly limited to two years from the date of purchase. TV One assumes no liability to distributors, resellers or end-users or any third parties for any loss of use, revenue or profit.

TV One makes no other representation of warranty as to fitness for the purpose or merchantability or otherwise in respect of any of the products sold. The liability of TV One with respect to any defective products will be limited to the repair or replacement of such products. In no event shall TV One be responsible or liable for any damage arising from the use of such defective products whether such damages be direct, indirect, consequential or otherwise, and whether such damages are incurred by the reseller, end-user or any third party.

8.0 REGULATORY COMPLIANCE

The 1T-CT-637 HDMI to Multiple Cat.6 Transmitter has been tested for compliance with appropriate FCC and CE rules and regulations. The Power Adaptor/Supply has been tested for compliance with appropriate UL, CUL, CE, PSE, GS Rules, Regulations and/or Guidelines. This Product and Power Adapter is RoHS Compliant.

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